

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

**1-28. Canceled**

29. **(Currently Amended)** A gateway computer according to claim 28, (131, 132, 612, 622, 632, 711, 721, 731, 741, 1111, 1112, 1301) for offering another computer device an IPsec-protected connection to and from a logical network segment (101, 601, 701, 1101) within which the distribution of broadcast packets is allowable, wherein the IPsec protection is arranged to specify, what kinds of packets are acceptable for transmission over an IPsec-protected connection, characterized in that the gateway computer comprises:

- means (1311, 1321) for encapsulating a broadcast packet into a form that is acceptable for transmission over an IPsec-protected connection,
- means (1312, 1322) for unicast transmitting the encapsulated broadcast packet to the other computer device through an IPsec-protected connection,
- a first network interface (1322) for connecting the gateway computer to a logical network segment comprising several computer devices,
- a second network interface (1312) for connecting the gateway computer to individual hosts for the purpose of making such individual hosts appear as parts of the logical network segment,
- an IPsec component (1311) coupled to the second network interface (1312) for implementing IPsec protection within connections through said second network interface,
- a broadcast packet handler component (1350), wherein the broadcast packet handler component is arranged to:
  - receive (1355) broadcast packets from either of the first (1322) and second (1312) network interfaces,
  - forward (1353) received broadcast packets to application layer entities (1302) in the gateway computer,
  - forward (1353) broadcast packets received from the first network interface (1322) towards the second network interface (1312),

- forward (1353) broadcast packets received from the second network interface (1312) towards the first network interface (1322),
  - forward (1353) broadcast packets from application layer entities (1302) in the gateway computer towards the first and second network interfaces, and
    - instruct the IPsec component (1311) regarding protected transmission of broadcast packets through the second network interface,

characterized in that the broadcast packet handler component (1350) is additionally arranged to receive information (1355) from the IPsec component (1311) regarding the number and endpoints of currently existing IPsec-protected connections through the second network interface.

**30-31. Canceled**

**32. (Currently Amended)** A gateway computer according to claim 31, A host computer (121, 122, 141, 732, 733, 742, 743, 1113, 1114, 1301), comprising means (1311, 1312) for establishing an IPsec-protected connection to and from a gateway computer of a logical network segment within which the distribution of broadcast packets is allowable, wherein the IPsec protection is arranged to specify, what kinds of packets are acceptable for transmission over the IPsec-protected connection, characterized in that the host computer comprises:

- means (1311) for encapsulating a broadcast packet into a form that is acceptable for transmission over the IPsec-protected connection,
- means (1312) for unicast transmitting the encapsulated broadcast packet to the gateway computer through the IPsec-protected connection,
- a network interface (1312) for connecting the host computer to a gateway computer,
- an IPsec component (1311) coupled to the network interface (1312) for implementing IPsec protection within connections through said network interface, and
- a broadcast packet handler component (1350), wherein the broadcast packet handler component is arranged to:
  - receive (1355) broadcast packets from the network interface,

- forward (1353) received broadcast packets to application layer entities (1302) in the host computer,

- forward (1353) broadcast packets from application layer entities (1302) in the host computer towards the network interface (1312), and

- instruct the IPsec component (1311) regarding protected transmission of broadcast packets through the network interface,

characterized in that the broadcast packet handler component (1350) is additionally arranged to receive (1355) information from the IPsec component (1311) regarding the number and endpoints of currently existing IPsec-protected connections through the network interface.

**33-38. Canceled**